



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,723	02/14/2002	C.J. Anthony Fernando	02-02 US	7904

23693 7590 03/12/2004

Varian Inc.
Legal Department
3120 Hansen Way D-102
Palo Alto, CA 94304

EXAMINER

PAK, SUNG H

ART UNIT	PAPER NUMBER
----------	--------------

2874

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/077,723	Applicant(s) FERNANDO ET AL.	
	Examiner Sung H. Pak	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/14/2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0202</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

All reference submitted in the information disclosure statement filed 2/14/2002 have been considered by the examiner. Please refer to the initialed copy of PTO/SB/08A enclosed herewith.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9-11, 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Mihich (US 4,953,932).

Mihich reference discloses an optical device with all the limitations set forth in the claims, including: an optical input selection device rotatable about a first central axis and comprising a first input end ("32" Fig. 2a); disposed collinearly with the first central axis and a first output end disposed at a radially offset distance from the first central axis (Fig. 2a, 2b); an optical output selection device rotatable about a second central axis and comprising a second input end disposed at a radially offset distance from the second central axis (Fig. 2a); and a second output end disposed collinearly with the second central axis ("36" Fig. 2a); a rotatable coupling mechanism interconnecting the optical input selection device and the optical output selection device (Fig. 2a). Also,

Art Unit: 2874

since Mihich reference discloses all the claimed limitations of the apparatus claims, it implicitly discloses the method of selecting an optical channel using such an apparatus, as claimed in claim 23.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 12-13, 18-19, 21, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui (JP 58072108 A).

Matsui reference discloses an optical device with all the limitations set forth in the claims, except it does not teach the use of a base and a mounting member.

Specifically, Matsui reference discloses: an optical channel selection device supported

Art Unit: 2874

by the base and rotatable about a central axis, the optical channel selection device comprising an internal optical fiber having an internal optical fiber input end and an internal optical fiber output end (Fig. 1); the internal optical fiber input end disposed collinearly with the central axis and the internal optical fiber output end disposed at a radially offset distance from the central axis (Fig. 1); a plurality of fiber optic lines, each return line having a return line output end fixedly supported in a circular arrangement ("2_n" Fig. 1), wherein each line input end is selectively optically alignable with the internal optical fiber output end of the optical channel selection device through incremental rotation of the optical channel selection device (Fig. 1).

However, the use of a base and a mounting member in optical switching art is well known and common. A base and a mounting member advantageously provide a means for securely disposing optical fibers in a coupling arrangement, such that light coupling between the two fibers may be carried out with minimal loss. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Matsui device to have a base and a mounting member.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

Art Unit: 2874

patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 2, 3-5, 6-7, 8, 14-17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 6, 5, 14, 5, 3 (respectively) of U.S. Patent No. 6,611,334 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other.

The '334 patent claims a device with all the limitations set forth in the claims, except it only discloses a fiber optic selection switch to be used in a sample analysis system comprising plurality of media containers and sample test sites.

Specifically, '334 patent claims: An apparatus for selectively coupling fiber optic lines comprising: (a) an optical input selection device rotatable about a first central axis and comprising a first input end disposed collinearly with the first central axis and a first output end disposed at a radially offset distance from the first central axis; (b) an optical output selection device rotatable about a second central axis and comprising a second input end disposed at a radially offset distance from the second central axis and a second output end disposed collinearly with the second central axis; and (c) a rotatable coupling mechanism interconnecting the optical input selection device and the optical output selection device; further comprising a plurality of fiber-optic source lines and a plurality of fiber-optic return lines, wherein the plurality of source lines have respective source line input ends fixedly disposed in a circular arrangement, the plurality of return lines have respective return line output ends fixedly disposed in a circular

arrangement, each source line input end is selectively optically alignable with the first output end of the optical input selection device through incremental rotation of the optical input selection device, and each return line output end is selectively optically alignable with the second input end of the optical output selection device through incremental rotation of the optical output selection device (claim 6).

'334 patent further claims, the optical input selection device comprising: (a) a first rotary element rotatable about the first central axis, the first rotary element comprising a first input surface and an opposing first output surface, wherein the first input end is exposed at the first input surface and the first output end is exposed at the first output surface; and (b) a first stationary element disposed adjacent to the first output surface and having a plurality of circumferentially spaced first stationary element apertures, wherein each first stationary element aperture is disposed at the radially offset distance from the first central axis, and the first output end is alignable with a selected one of the first stationary element apertures through rotation of the first rotary element (claim 5).

'334 patent further claims, the optical output selection device comprising: (a) a second rotary element rotatable about the second central axis, the second rotary element comprising a second input surface and an opposing second output surface, wherein the second input end is exposed at the second input surface and the second output end is exposed at the second output surface; and (b) a second stationary element disposed adjacent to the second input surface and having a plurality of circumferentially spaced second stationary element apertures, wherein each second

Art Unit: 2874

stationary element aperture is disposed at the radially offset distance from the second central axis, and the second input end is alignable with a selected one of the second stationary element apertures through rotation of the second rotary element (claim 14).

On the other hand, '334 patent does not explicitly teach the use of such a fiber optic device sans sample analysis media containers and sample test sites. However, the use of fiber optic switching arrangement in an optical communications application without the use of sample analysis media containers and sample test sites is well known and common in the fiber optic switching art. Fiber optic switches for switching optical communications signals are advantageous and desirable because it allows for high bandwidth, robust optical signal communications. Therefore, it would have been obvious to a person of ordinary skill in the art to modify and claim the invention of '334 patent to recite a fiber optic switching device sans sample analysis media and sample sites.

Claims 20, 22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 16 of U.S. Patent No. 6,611,334 B1. Although the conflicting claims are not identical, they are not patentably distinct.

'334 patent claims an optical device with all the limitations set forth in the claims, except it does not explicitly claim a base.

Specifically, '334 patent claims: An apparatus for routing optical signals comprising: (a) an optical channel selection device supported by the base and rotatable about a central axis, the optical channel selection device comprising an internal

Art Unit: 2874

optical fiber having an internal optical fiber input end and an internal optical fiber output end, the internal optical fiber input end disposed collinearly with the central axis and the internal optical fiber output end disposed at a radially offset distance from the central axis; (b) a mounting member supported by the base; and (c) a plurality of fiber-optic return lines, each return line having a return line output end fixedly supported by the mounting member; a plurality of sample test sites, each sample test site optically communicating with the internal optical fiber end of the optical channel selection device at a selected rotary index position thereof and one of the optical return lines corresponding to the selected rotary index position. (Claim 16).

However, the use of a base is well known and common in the fiber optic device art. The use of a base is advantageous and desirable because it provides a stable structure with which other fiber optic components may be securely disposed. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify '334 invention to further claim a base.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fernando et al (US 6,496,618 B1), Anthony (US 5,287,423), and Mori (US 4,626,065) disclose rotary coupling arrangements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sung H. Pak whose telephone number is (571) 272-

Art Unit: 2874

2353. The examiner can normally be reached on Monday - Thursday : 6:30am-5:00pm.


The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sung H. Pak
Examiner
Art Unit 2874

sp



HEMANG SANGHAVI
PRIMARY EXAMINER